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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,969	07/03/2001	Ramesh Lhila	6001-44-1	9960

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,969

Applicant(s)

LHILA, RAMESH

Examiner

Hai Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20,41 and 42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other: .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10-14, 16, 18, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) substantially as set forth in Paper no. 8. With regard to newly added claims 41, 42, the recitation "a foam-like backing for acrylic pressure sensitive adhesive tapes" has not given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. ***Kropa v. Robie***, 88 USPQ 478 (CCPA 1951).

The foam core layer of the pressure sensitive adhesive of Ko is analogous to the backing layer of the claimed invention. Ko discloses *the foam layer comprising an acrylic copolymer which may incorporate similar or dissimilar acrylic monomers in like or unlike thicknesses, having similar or different additives from those acrylic copolymers contained in the adhesive layer. The foam layer comprises about 80 parts to about 99 parts of an alkyl acrylate monomer, and about 20 parts to about 1 part of a copolymerizable modifier monomer, based upon 100 parts by weight of acrylic monome, i.e. alkyl acrylate monomer plus modifier monomer* (column

14, lines 26-38). Ko also discloses alkyl acrylate monomers can be formed from a mixture of two independent monomers (column 6, lines 35-39). The same token is applied to the modifier monomers. Ko discloses modifier monomers can be formed from a mixture of two independent monomers (column 6, lines 63-68). Ko does not specially disclose the amount of each individual monomer in the foam layer. However, these features would have been recognized by one skilled in the art as dependent upon the intended use of the product (column 7, lines 33-47). As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the cited monomers having the amount ranges instantly claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Ko discloses the foam layer comprising 5 to 65 volume percent of hollow glass microspheres (column 14, lines 40-43). However, the feature would have been recognized by one skilled in the art to promote the foam-like appearance of the foam layer. As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the microsphere having the amount range instantly claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Since Ko is using the same composition to form the foam layer as Applicant, the

recovery of the foam layer would be inherently present within the range as set forth in the claims.

3. Claims 9, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Palazzotto et al (US 5,521,227). Ko discloses a foam layer of the pressure sensitive adhesive tape further comprising a hydrophobic silica as a filler (column 14, lines 47-48). Palazzotto discloses the hydrophobic silica essentially being a fumed silica (column 28, line 62 et seq.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the fumed silica into the foam layer because the fumed silica is typically known as the hydrophobic silica.
4. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Mazurek et al (US 5,264,278). Ko is silent as to 1,4-butanediol diacrylate as a crosslinker and coloring agent as a filler. Mazurek supplies the missing features. Mazurek discloses 1,4-butanediol diacrylate incorporated into the adhesive composition as a crosslinker and a dye being used as a filler (column 11, line 43, and column 12, line 41). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the foam composition motivated by the desire to effect crosslinking. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to have incorporated a dye into the foam composition motivated by the desire to colorize the adhesive tape.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (US 5,308,887) as applied to claim 1, in view of Palazzotto et al (US 5,521,227) and Mazurek et al (US 5,264,278). Ko discloses the photoinitiator being benzoin ethyl ether (column 10, line 32). Ko discloses a foam layer of the pressure sensitive adhesive tape further comprising a hydrophobic silica as a filler (column 14, lines 47-48). Palazzotto discloses the hydrophobic silica essentially being a fumed silica (column 28, line 62 et seq.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the fumed silica into the foam layer because the fumed silica is typically known as the hydrophobic silica.

Ko is silent as to 1,4-butanediol diacrylate in the foam layer. Mazurek discloses 1,4-butanediol diacrylate being used as a crosslinker (column 11, line 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the foam composition motivated by the desire to effect crosslinking.

6. Claims 1-8, 11-14, 18, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everaerts et al (US 5,612,136).

The recitation "a foam-like backing for acrylic pressure sensitive adhesive tapes" has not given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the

portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. **Kropa v. Robie**, 88 USPQ 478 (CCPA 1951).

The core layer of the pressure sensitive adhesive of Everaerts is analogous to the backing layer of the claimed invention. Everaerts discloses *the core layer comprising an acrylic copolymer which may incorporate similar or dissimilar acrylic monomers having similar or different additives from those acrylic copolymers contained in the adhesive layer. The core layer comprises about 80 parts or more of an alkyl acrylate monomer, and up to about 20 parts of a copolymerizable modifier monomer, based upon 100 parts by weight of acrylic monomer, i.e. alkyl acrylate monomer plus modifier monomer* (column 9, lines 40-48). Everaerts also discloses alkyl acrylate monomers can be formed from a mixture of two independent monomers (column 5, lines 20-25). The same token is applied to the modifier monomers. Everaerts discloses modifier monomers can be formed from a mixture of two independent monomers, basic monomer and acidic monomer (column 5, lines 36-49, column 7, lines 20-39). Everaerts does not specially disclose the amount of each individual monomer in the foam layer. However, these features would have been recognized by one skilled in the art as dependent upon the intended use of the product. As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the cited monomers having the amount ranges instantly claimed, since it has been held that where the general

conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Everaerts discloses the core layer comprising 5 to 65 volume percent of hollow glass microspheres (column 9, lines 40-43). However, the feature would have been recognized by one skilled in the art to promote the foam-like appearance of the core layer (column 9, line 53). As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the microsphere having the amount range instantly claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Since Everaerts is using the same composition to form the core layer as Applicant, the recovery of the core layer would be inherently present within the range as set forth in the claims.

7. Claims 9, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everaerts et al (US 5,612,136) as applied to claim 1 in view of Ko et al (US 5,308,887). Everaerts discloses a core layer of the pressure sensitive adhesive tape further comprising a filler (column 9, line 65 et seq.). Ko discloses silica, and hydrophobic silica being used a filler in the core layer (column 14, lines 45-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the silica or the fumed

hydrophobic silica as the filler of the core layer motivated by the desire to alter the properties of the core layer.

8. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everaerts et al (US 5,612,136) as applied to claim 1, in view of Mazurek et al (US 5,264,278). Everaerts is silent as to 1,4-butanediol diacrylate as a crosslinker and coloring agent as a filler. Mazurek supplies the missing features. Mazurek discloses 1,4-butanediol diacrylate incorporated into the adhesive composition as a crosslinker and a dye being used as a filler (column 11, line 43, and column 12, line 41). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the core layer motivated by the desire to effect crosslinking. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a dye into the core layer motivated by the desire to colorize the adhesive tape.
9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Everaerts et al (US 5,612,136) as applied to claim 1, in view of Ko et al (US 5,308,887) and Mazurek et al (US 5,264,278). Everaerts discloses the photoinitiator being benzoin ethyl ether (column 9, lines 6-7). Ko discloses a core layer of the pressure sensitive adhesive tape further comprising a hydrophobic silica as a filler (column 14, lines 47-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the

fumed silica into the core layer by the desire to alter the properties of the core layer.

Everaerts and Ko are silent as to 1,4-butanediol diacrylate in the core layer.

Mazurek discloses 1,4-butanediol diacrylate being used as a crosslinker (column 11, line 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated 1,4-butanediol diacrylate into the core layer motivated by the desire to effect crosslinking.

Response to Arguments

10. The claim objections have been overcome by the present amendment.
11. The art rejections over Ko in view of Brochman have been overcome by the present response.
12. Applicant's arguments filed 08/19/2002 have been fully considered but they are not persuasive.
13. The art rejections over Ko are maintained because of the following reasons.

Applicants argue that there is no teaching or suggestion that the acrylic monomers of the core layer be a mixture of more than one monomer as in the present invention. This is not found persuasive. Ko also discloses alkyl acrylate monomers can be formed from a mixture of two independent monomers (column 6, lines 35-39). Further, Ko discloses modifier monomers can be formed from a mixture of two independent monomers (column 6, lines 63-68). Applicants go on and state that Ko does not render the present invention obvious because Applicants try to form an acrylic foam-like backing rather than a conventional

acrylic adhesive. The core layer of Ko is analogous to the backing layer of the claimed invention. The core layer of Ko meets every limitations~~s~~ of the claimed subject matter except for the amount ranges of the individual monomer and glass microsphere.

Applicants arguments that Mazurek does not teach that 1,4-butane diol diacrylate is used to crosslink the crylic monomer in the foam backing but rather is used to crosslink the hybrid PSA system to control the PSA properties are not found persuasive. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
October 31, 2002



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700